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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/063,454	04/24/2002	Michiel J. van Nieuwstadt	201-0830 AJL	6571

7590 04/14/2005

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EXAMINER

TRAN, DIEM T

ART UNIT	PAPER NUMBER
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3748

DATE MAILED: 04/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SP

Office Action Summary	Application No. 10/063,454	Applicant(s) VAN NIEUWSTADT ET AL.	
	Examiner Diem Tran	Art Unit 3748	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

After reconsideration the rejections in the last office action, the Examiner decided to withdraw the Finality of the rejection of the last Office action and a new non-final rejection is set forth below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Hardy (US Patent 4,835,963).

Regarding claims 1-4, Hardy discloses a method for regenerating a particulate filter (32) coupled to an exhaust system of an internal combustion engine (12) (see Figure 1), where the exhaust system terminates at a tailpipe, comprising:

commencing a self-sustaining filter regeneration, monitoring whether said regeneration causes temperature of said particulate filter to become greater than a predetermined value; and in response to said monitoring, adjusting one operating parameters so as to limit exothermic reaction via control of an excess oxygen amount entering said filter and prevent temperature from rising to become greater than a pre-selected value; and continuously flowing all exhaust emitted from the tailpipe through the particulate filter (see col. 4, 61-68, col. 5, lines 1+).

Claims 5, 6, 10-12, 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Ludecke et al. (US Patent 4,211,075).

Regarding claims 5, 6, 10-12, 15, Ludecke discloses a method for operating an engine coupled to an exhaust system having a diesel particulate filter (22), where the exhaust system terminates at a tailpipe; the engine having an electronically controlled throttle valve () that adjusts oxygen flow entering the engine, the method comprising:

detecting temperature (42) indicative of said diesel particulate filter (see col. 4, line 5);
controlling air flow via the valve based on said detected temperature so as to prevent temperature of the diesel particulate filter from rising to a point that causes degradation due to excessive exothermic reaction, while continuing filter regeneration (see col. 4, lines 56-65); and
continuously flowing all the exhaust emitted from the tailpipe through the particulate filter.

Claims 7, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Arai (JP 64-087820).

Regarding claims 7, 8, Arai discloses a system comprising a diesel engine having an exhaust system; an exhaust gas oxygen sensor (30) coupled in said exhaust system; an electronically controlled throttle valve (31) coupled to said engine; a diesel particulate filter (3) coupled to said engine (see Figure 1); and a controller for commencing self-sustaining regeneration of said particulate filter, determining a desired oxygen flow, and adjusting said valve to provide said desired flow in response to said exhaust gas oxygen sensor (30) (see abstract).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arai (JP 64-087820) as applied to claim 7 above, in view of Ludecke et al. (US Patent 4,211,075).

Arai discloses all the claimed limitations as discussed in claim 7 above, however, fails to disclose controlling particulate filter temperature based on engine speed and engine load. Ludecke teaches that it is conventional in the art, to control particulate filter temperature based on engine speed and engine load (see col. 3, lines 57-68, col. 4, lines 1+).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the teaching of Ludecke in the Arai method, since the use thereof would have improved the efficiency of the filter regeneration.

Claims 13, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ludecke et al. (US Patent 4,211,075) as applied to claim 10 above, in view of Kondo et al. (US Patent 4,732,593).

Regarding claims 13, 14, Ludecke discloses all the claimed limitations as discussed in claim 10 above; however, fails to disclose that said diesel particulate filter comprises SiC or cordierite. Kondo teaches that it is conventional in the art, to utilize a diesel particulate filter comprising high temperature resistant SiC or cordierite (see col. 2, lines 67-68, col. 3, lines 1-4).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the teaching of Kondo in the Ludecke system since the use thereof would have produced a durable particulate filter.

Conclusion

Any inquiry concerning this communication from the examiner should be directed to Examiner Diem Tran whose telephone number is (571) 272-4866. The examiner can normally be reached on Monday -Friday from 8:30 a.m.- 5:00p.m.

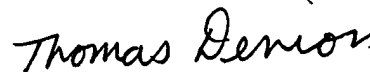
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (571) 272-4859. The fax number for this group is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 800-786-9199 (toll-free).

DT
April 7, 2005



Diem Tran
Patent Examiner
Art unit 3748



THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700